

K0904735

**510(k) Summary  
for the Vertecem Bone Cement**

**DEC 21 2009**

In accordance with 21 CFR 807.92 of the Federal Code of Regulations  
the following 510(k) summary is submitted for the Vertecem Bone Cement

Date Prepared: February 16, 2009

**1. Submitter:**  
Teknimed SA  
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France

**Contact Person:**  
J.D. Webb  
The OrthoMedix Group, Inc.  
1001 Oakwood Blvd  
Round Rock, TX 78681  
Telephone: 512-388-0199

**2. Trade name:** Vertecem Bone Cement  
**Common Name:** Polymethylmethacrylate (PMMA) bone cement  
**Classification Name:** Cement, Bone, Vertebroplasty  
Class II per 21 CFR section 888.3027  
NDN

**3. Predicate or legally marketed devices which are substantially equivalent:**  
Vertecem Bone Cement is substantially equivalent to similar previously cleared bone cements.

**4. Description of the device:**  
Vertecem is a self-hardening and ready to use bone cement with a high amount of radiopaque agent for percutaneous vertebroplasty. It allows an excellent consolidation of the vertebral body and an effective and rapid pain relief. This type of cement is made of two sterile components: the polymer in powder and the liquid monomer. These two components are in a double sterile packaging. Each unit contains a sterile ampoule of liquid within a blister pack and a powder within a double peelable pouch, the whole being packaged in a box.

**Materials:**  
The liquid component is mainly composed of methyl methacrylate. The major powder component is polymethylmethacrylate (PMMA). Benzoyl peroxide which initiates the polymerization is included in the polymer powder.

**5. Intended Use:**  
The Vertecem Bone Cement is used for the fixation of pathological fractures of the vertebral body using vertebroplasty or kyphoplasty procedures. Painful vertebral compression fractures of the vertebral body may result from osteoporosis, benign lesions (hemangioma), or malignant lesions (metastatic cancers, myeloma).

**6. Comparison of the technological characteristics of the device to predicate and legally marketed devices:**  
The modified Vertecem Bone Cement is substantially equivalent to commercially marketed predicate device. The modifications do not change the intended use or fundamental scientific technology of the device and do not raise any new issues of safety or effectiveness.

**7. Summary of Nonclinical Tests**  
Test data indicate that the final properties of Vertecem Bone Cement are stable and in compliance with the standard reference for bone cement: ISO 5833 "implants for surgery - acrylic resin cements" and are similar to predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room W-O66-0609  
Silver Spring, MD 20993-0002

DEC 21 2009

Teknimed, S.A.  
% The OrthoMedix Group, Inc.  
Mr. J.D. Webb  
1001 Oakwood Boulevard  
Round Rock, Texas 78681

Re: K090435

Trade/Device Name: Vertecem Bone Cement  
Regulation Number: 21 CFR 888.3027  
Regulation Name: Polymethylmethacrylate (PMMA) bone cement  
Regulatory Class: Class II  
Product Code: NDN  
Dated: November 23, 2009  
Received: December 2, 2009

Dear Mr. Webb:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical

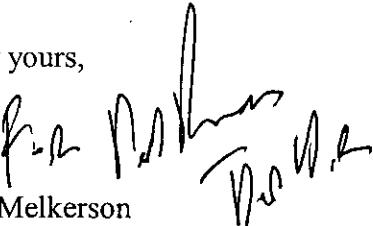
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device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/cdrh/mdr/> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Mark N. Melkerson  
Director  
Division of Surgical, Orthopedic  
and Restorative Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known):

Device Name: Vertecem Bone Cement

### Indications For Use:

The Vertecem Bone Cement is used for the fixation of pathological fractures of the vertebral body using vertebroplasty or kyphoplasty procedures. Painful vertebral compression fractures of the vertebral body may result from osteoporosis, benign lesions (hemangioma), or malignant lesions (metastatic cancers, myeloma).

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR      Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

 FOR M. MELKERSON  
(Division Sign-Off)  
Division of Surgical, Orthopedic,  
and Restorative Devices

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